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10/804,572

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03/21/2006

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EXAMINER

TON, ANABEL

ART UNIT

PAPER NUMBER

2875

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/804,572

Applicant(s)

WARNECKE ET AL.

Examiner

Anabel M. Ton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 11, 16-19, 21-25, 27 and 29-31 is/are rejected.
- 7) ☒ Claim(s) 8, 10, 12-15, 20, 26, 28, 32 and 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 02/05.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1,16,26 and 28 are objected to because of the following informalities: These claims recite "a light -beam characteristic of the light beam dependent upon which, if any, portion of the first filter flag forms the selected portion selectably positioned in the light beam"; the term "if any" renders the claim indefinite since it appears that the invention must have the filter flag to produce a light beam characteristic and stating the light beam could or could not be dependent on a portion of the filter flag is an indefinite statement. Claims 26 and 28, which are dependent from claims 1 and 4 respectively, recite "is additionally positioned between the two lenses" there is no antecedent basis for "two lenses" in claims 1 or 4. Appropriate correction is required.

2. As best understood the following rejection applies

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 21 is rejected under 35 U.S.C. 102(b) as being anticipated by Richardson et al (5,126,886).

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5. Richardson discloses a first filter having a first part and at least a second part, the first part of the said first filter exhibiting a first color characteristics and the second part of said first filter exhibiting second color characteristics, any of the first part and the at least the second part of said first filter positionable in the light beam; a second filters having a first part and at least a second part, the first part of said second filter flag exhibiting third color characteristics and the second filter flag exhibiting fourth color characteristics, any of the first part and the at least the second part of said second filter flag also positionable in the light beam, selection of which parts of said first and second filter flags, respectively, positioned in the light beam determinative of lighting characteristics thereof (fig 7, col. 5 lines 10-36, 65-67, col. 6 lines 1-9).

6. Claims 22 is rejected under 35 U.S.C. 102(b) as being anticipated by Richardson (6,502,961).

7. Richardson discloses a first lens positioned in-line with the light beam, said first lens (161) for redirecting light energy of the light beam incident thereon in directions generally parallel to the axial direction of the light beam a filter formed at least of a first color supportively positioned at an angle direction offset from the axial direction of the light beam and inline with the light beam once redirected by the first lens the filter((18) for coloring the light beam and a second lens positioned in line with the light beam once colored by the filter the second lens(201) for shaping the light beam in a desired manner (22).

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7,11,16-18,24,25,27,29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al (5,515,254) and further in view of Richardson et al (5,126,886).

3. Smith discloses the claimed invention except for the recitation of a filter flag. Smith discloses a color-changing apparatus for a light assembly having a light source that generates a light beam in at least an axial direction , said color-changing apparatus comprising: at least a color filter formed of a first color, said first color filter exhibiting along at least a portion of a length thereof, a first range of first color-saturation gradations in the first color (yellow, cyan, magenta, col. 3 lines 10-59); at least a first filter positioner (color wheel) for supportively positioning said at least the first filter at least selectably at an angle offset from the axial direction of the light beam, said first color wheel for translating said first filter selectably to position a selected portion thereof in the light beam, a light- beam characteristic of the light beam dependent upon which a portion of said first forms the selected portion selectably positioned in the light beam; The first filter comprises said first filter and at least a second filter, said second filter flag

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of a second color and exhibiting, along at least a portion of a length thereof, a second range of second color-saturation gradations in the second color( col. 3 lines 38-59).

said at least first filter positioner (color wheel) comprises said first filter positioner and at least a second filter positioner, said second filter positioner for supportively positioning said second filter at an angle offset from the axial direction of the light beam, said second filter positioner, said second filter selectably to position a selected

portion thereof in the light beam, the light-beam characteristic of the light beam further dependent upon a portion of said second filter forms the selected portion of the second filter flag positioned in the light beam. (col. 3 lines 10-59) ; the least second filter comprises said second filter and at least a third filter, said third filter of a third color and exhibiting, along at least a portion of a length thereof, a third range of third color-saturation gradations in the third color (86y, 86c, 86m, Fig 3) ; the first color of which said first filter is formed comprises cyan, wherein the second formed comprises yellow, and wherein the third color of which said third filter is formed comprises magenta; at least the first filter-flag comprises a dichroic filter (col. 3 lines 38-39) ;the first range of the first color-saturation gradations extend along the first filter to define a less saturated region of the first portion and a more saturated region, and wherein said first color saturation gradations extend along the first filter to define a less saturated region of the first portion (301) and amore saturated region(306), and wherein said first filter comprises a second portion the second portion exhibiting a first selected constant saturation level (fig 6, col. 6 lines 32-37); the first filter comprises a third portion the third portion exhibiting a third selected constant saturation level (303); the angle offset from

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the axial direction at which the first filter positioner supportively positions the first filter comprises a substantially perpendicular angle substantially perpendicular to the axial direction of the light beam (fig 3, L). Richardson et al discloses a linear filter flag with multiple color gradients along the filter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the filter flag in substitution for the filters as used by Smith for the purpose of moving the filters along a linear direction instead of a an angular direction. The first filter is of a first primary color, the single first filter exhibits along at least a portion or it's area a first range of first color saturation gradations in the color ( fig 6), the second filter is of a second primary color, the third filter is of a third primary color (Smith et al col. 3 lines 10-15). With regards to the placement of the cyan, magenta and yellow filters, Smith discloses all the limitations of the claims, except for the specific order of the placement of the aforementioned filters. It would have been obvious to one of ordinary skill in the art at the time the invention was made to place the cyan, magenta and yellow filters in the same order as applicant, since it has been held that rearranging parts of a prior art structure involves only routing skill in the art. *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

4. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson('886) in further view of Smith.

5. Richardson discloses the claimed invention except for the recitation of the filter being positioned at angle offset from the axial direction of the light beam. Richardson discloses the structural limitations of the method claims being supportively positioning a

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first filter in front of a light beam, the first filter formed of a first color, and the filter exhibiting along at least a portion of the length thereof a first range of first color saturation gradations in the first color; and a selectably positioning a selected portion of the at least first filter in the light beam, a light beam characteristic of the light beam dependent upon a portion of the at least first filter placed in the light beam (Figs 2,7, col. 3 lines 59-67, col. 4 lines 1-3); operation of supportively positioning comprises supportively positioning a set of filters formed of the first filter and at least a second filter at an angle with respect to the axial direction of the light beam, selectably positioning comprises independently positioning any selected portion of any filter of the set of filters in the light beam (fig 2, fig 7, col. 6 lines 47-67, col. 7 lines 1-24); each filter of the set of filters is supportively positioned during the operation of supportively positioning at a common side of the light beam generated by the light source (fig 2). Smith discloses the light beam of the color-mixing device as offset with respect to the filters (fig 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to place the filters at an angle offset from the axial direction of the light beam as taught by Smith since Smith teaches that such a positioning is purposeful for a desired light output.

4. Claim 23-25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson ('961) and further in view of Richardson (886')

8. Richardson '961 discloses the claimed invention except for the recitation of the filter being formed of a single first color. Richardson 961' discloses a light source producing a light source light beam an optical assembly comprising at least two lens



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groups positioned in a path defined by the axial direction of the light beam (fig 2, (14, 161, 201), single first filter(18) formed of a color supported so as to be movable across the light beam; the first single filter is positioned between the two lenses of the optical assembly so as to integrate the light a provide a color output beam; Richardson 886' discloses a projection assembly with a filter of a single first color (white), the single first filter is of a first primary color, the first filter exhibits along at least a portion of its length thereof a first range of a first color saturation gradations in the color (fig 6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the single first color of Richardson 886' into the Richardson 961' device single Richardson 886' discloses that such a feature is purposeful for providing a light projecting device with a desired color.

### ***Allowable Subject Matter***

5. Claims 8,10,12-15,20,26,28,32-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. The following is a statement of reasons for the indication of allowable subject matter: The prior art cited does not disclose the teaching of the first range of the first color-saturation gradations extend along the first filter flag to define a less saturated region of the first portion and a more saturated region , and wherein said first filter flag

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further comprises a second portion, the second portion exhibiting a first selected constant saturation level.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anabel M. Ton whose telephone number is (571) 272-2382. The examiner can normally be reached on 08:00-16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anabel M Ton  
Examiner  
Art Unit 2875

AMT



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